IN THE CLAIMS:

1. (Canceled)

2. (currently amended) A negative electrode for a rechargeable lithium battery which includes a conductive metal foil current collector and an active material layer provided on a surface of the current collector and comprising a polyimide binder and particles of active material containing silicon and/or a silicon alloy;

said negative electrode characterized in that said current collector has mechanical properties of at least 80 N/mm^2 tensile strength, at least 30 N/mm^2 proportional limit, at least 1.0 % elongation at break and at least 0.03 % elastic elongation limit and said binder has mechanical properties of at least 50 N/mm^2 tensile strength, at least 10 % elongation at break, at least 2.5 x 10^{-3} J/mm^3 strain energy density and up to 10,000 N/mm^2 elastic modulus;

after provision of said active material layer on the surface of said current collector, heat treatment being carried out at a temperature higher than a glass transition temperature and lower than a decomposition temperature of said binder to improve adhesion of the binder to the current collector.

3. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said mechanical properties are imparted to the current collector by a thermal history of the sintering treatment.

4. (original) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said mechanical properties are imparted to said current collector by subjecting the current collector to a heat treatment before said active material layer is provided on the surface of the current collector.

5. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that a thickness X of said active material layer, a thickness Y and a surface roughness Ra of said current collector satisfy the relationships $5Y \geq X$ and $250Ra \geq X$.

6. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said surface of the current collector that carries the

active material layer thereon has a surface roughness Ra of at least 0.2 μm.

7. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said current collector comprises a copper foil, a copper alloy foil or a metal foil having a copper or copper alloy surface layer.

8. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said current collector comprises an electrolytic copper foil, an electrolytic copper alloy foil or a metal foil having an electrolytic copper or copper alloy surface layer.

9 - 12. (canceled)

13. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said binder has said mechanical properties after a thermal history of said heat treatment.

14. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said binder has a linear expansion coefficient of 0.1×10^{-5} - 30×10^{-5} $°C^{-1}$.

15. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said binder has a glass transition temperature of up to 450 °C.

16 - 19. (canceled)

20. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said active material particles have a mean particle diameter of up to 10 μm.

21. (previously presented) The negative electrode for a rechargeable lithium battery as recited in claim 2, characterized in that said active material layer includes a conductive powder.

22. (previously presented) A rechargeable lithium battery including the negative electrode as recited in claim 2, a positive electrode containing a positive electrode material and a nonaqueous electrolyte.